

REMARKS

Claims 1-3 and 9-16 are currently pending in this application. Reconsideration is respectfully requested in light of the above amendments and the following remarks.

The Examiner rejected claims 1-2 and 9-16 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 5,740,811 to Hedberg et al. Applicants respectfully traverse this rejection.

Applicants' claimed invention as recited in claims 1 and 16 is directed to a method and corresponding system for emulating a surface electrocardiogram (EKG) of a patient. For example independent claim 1 recites a method comprised in part by sensing first and second separate cardiac signals ... identifying a pair of baseline points in the first and second cardiac signals and selectively concatenating a portion of the first cardiac signal between the pair of baseline points with a portion of the second cardiac signal that lies outside the pair of baseline points using the baseline points as concatenation points. (Underlining added for emphasis only). Applicants respectfully submit that Hedberg et al. do not disclose or suggest the recited claim elements.

Rather, Hedberg et al. process in vivo signals and then add them together (in their entirety) to form the synthesized signal. Hedberg et al. disclose that the reason for adding the signals from the electrodes is that they will simulate a signal obtained from a bigger electrode. (Hedberg et al. col. 6, lines 63-65). For example, in FIG. 13 transforming units, which process each of the electrode outputs, are coupled to a combining unit by multipliers which individually weigh each signal under the control of a microprocessor. The combining unit includes a summation stage which sums the outputs of the multipliers (in their entirety) to form the synthesized surface ECG. (Hedberg et al. col. 8, lines 15-50). Thus, Hedberg et al. process individual signals from separate electrodes and sum them together in their entirety to form an emulated surface ECG.

The Examiner suggests that col. 5, lines 30-37 and FIG. 4 of Hedberg disclose that a portion of an emulated signal is formed from only a portion of a second signal. Applicants disagree.

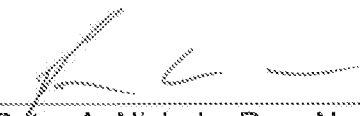
The sections pointed to by the Examiner (col. 5, lines 30-37) simply disclose that from FIG. 4 it "can be seen that different characteristics from the different recorded IEGMs can be recognized in the surface ECG." Thus, Hedberg disclose that certain sections of the surface ECG are dominated but certain sections of the IEGM allowing those sections to have similar characteristics. This in no way demonstrates that the system of Hedberg concatenates separate portion of individual IEGM signals to form an emulated surface ECG. Moreover, there is clearly no teaching of suggestion in Hedberg of identifying baseline points in first and second signals and selectively concatenating a portion of the first cardiac signal between the pair of baseline points with a portion of the second cardiac signal that lies outside the pair of baseline points using the baseline points as concatenation points as recited in the claimed invention.

Accordingly, Applicants respectfully submit that claims 1 and 16 are novel and non-obvious over Hedberg et al. and are therefore allowable. Applicants further submit that claims 2 and 9-15 that depend from claim 1 are allowable as is claim 1 and for additional limitations recited therein.

In light of the above amendments and remarks, it is respectfully submitted that the application is in condition for allowance, and an early notice of allowance is requested.

Respectfully submitted,


Date


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